

5 Van Bergen JEAM, Spaargaren PGH, Peerbooms PAS. Active case-finding of CT-infections in a family practice in a high prevalence area in Amsterdam: preliminary findings of a pharmacy-assisted approach using mailed urine-samples. Abstract 25, p25. Rotterdam: International STD conference, STDs in a changing Europe, 14–15 April 2000.

### Nurse counselling for women with abnormal cervical cytology improves colposcopy and cytology follow up attendance rates

EDITOR.—A well organised cervical screening programme has considerable benefits; however, one negative aspect is anxiety associated with abnormal results. The NHSCSP guidelines state that an explanatory leaflet should be given to women with abnormal cytology and those being referred for colposcopy, with a verbal explanation wherever possible.<sup>1</sup> We assessed if there is any additional benefit from a verbal explanation, following written information, when an abnormal smear result is given, in understanding and future attendance for colposcopy and cytology follow up.

Between April and December 1998 we recruited 89 women with abnormal cytology. All women attending for results are given the NHSCSP leaflet "What your abnormal result means" if their smear shows borderline changes, mild, moderate, or severe dyskaryosis. The study women completed a questionnaire after reading the leaflet. A nurse (BH) then gave a verbal explanation about the smear result. They then completed the questionnaire again. Attendance for colposcopy and cytology follow up was recorded, default being defined as non-attendance without cancellation. Default rates were compared with other women with abnormal cytology during the same period. They were not included in the study as they attended when the specified nurse was not available. They had all received the leaflet but not a structured explanation.

The explanation for each woman took approximately 15 minutes. The results of the questionnaire before and after explanation are shown in table 1. There was a significant improvement in understanding and reduction in anxiety. The control group comprised 104 women. In the study group 65 required colposcopy; three (4.6%) defaulted, compared

with seven of 38 (18.4%) women not receiving a verbal explanation;  $p = 0.03$  Fisher's exact test; OR 0.21 (95% CI 0.03–1.03). Of the study group, 81 should have attended for follow up cytology 6 months after colposcopy or smear showing borderline changes; 12 (15%) defaulted compared with 37 of 95 (38.9%) women not receiving a verbal explanation;  $p < 0.001$   $\chi^2$  test; OR 0.18 (95% CI 0.08–0.41). Eventually only one (1.5%) in the study group and two (5.3%) of the controls did not attend for colposcopy, and 11 (13.8%) and 24 (25.3%) for follow up cytology.

Despite the leaflet the women in our study still had misunderstandings and anxieties. The verbal explanation helped clarify these. Verbal information can be tailored to the individual, some requested detailed descriptions, others preferred a simpler explanation (as reported previously<sup>2</sup>). This is not possible with written information. Marteau *et al* found that a brief, simple booklet increased knowledge and reduced anxiety whereas a more complex booklet increased knowledge but did not reduce anxiety.<sup>3</sup>

The default rates were lower in those receiving the verbal explanation. Lerman *et al* found that women with abnormal cytology who defaulted colposcopy appointments were more worried about cancer with impairment of mood and sleep.<sup>4</sup> Following the explanation our default rate for colposcopy was within the 15% recommended target,<sup>5</sup> and follow up cytology was similar to the rates reported in primary care.<sup>6</sup>

There are deficits in this study. The lack of randomisation means the improvement in default rates could be the result of baseline differences rather than the verbal explanation. However, it has shown benefit to the women by improving understanding. The department has also benefited; although extra nursing time has been required, the lower default rates for colposcopy and cytology has reduced the clerical, medical, and secretarial time normally required recalling non-attendees.

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Table 1 The questionnaire results before and after the verbal explanation

Question	Response (n=89)	Before	After	$\chi^2$ test p value
How well do you understand the result you have been given?	Not at all	26	1	<0.0001
	A little	36	13	
	A lot	27	75	
Are you worried about the result of your smear test?	Yes	45	13	<0.0001
	A little	42	60	
	No	2	16	
Will it worry you if we need to do further investigations?	Yes	36	11	<0.0001
	A little	40	46	
	No	13	32	
Are you worried that further investigations will be painful?	Yes	55	28	0.0002
	Don't know	11	14	
	No	23	47	
Do you think that any abnormality found can be treated?	Yes	61	85	<0.0001
	Don't know	25	4	
	No	3	0	
Do you think you have cancer?	Yes	5	1	<0.0001
	Don't know	34	9	
	No	50	79	
Do you think this smear result will affect your ability to have children?	Yes	15	2	<0.0001
	Don't know	34	10	
	No	40	77	
Do you think this result will change your attitude to sex with your partner?	Yes	18	13	0.004
	Don't know	30	14	
	No	41	62	
Do you think this result will affect the way your partner thinks of you?	Yes	8	4	0.36
	Don't know	13	10	
	No	68	75	

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- 2 Kavanagh AM, Broom DH. Women's understanding of abnormal cervical smear test results: a qualitative interview study. *BMJ* 1997;314:1388–9.
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### Phone sex: information technology (IT) and sexually transmitted infection in young people

EDITOR.—The recent article on the acceptability of home testing for chlamydia was noted.<sup>1</sup> We would like to extrapolate this concept. Young people could be accessed via an internet clinic. Our experience during the chlamydia pilot study is that this population makes extensive use of technology, in particular mobile phones. The presence of sex on the internet has been widely publicised. We propose that testing for sexually transmitted infection (STI) via the internet is the next logical step.

The chlamydia pilot study was funded by the Department of Health, to investigate the feasibility of screening 16–25 year old women (and some men), for chlamydia, using a urine specimen. Antibiotics for chlamydia are cheap and effective. The cost of complications to the individual is enormous, as is the cost to the NHS—£200 million per year.<sup>2</sup> Screening reduced the prevalence of infection in Sweden and the United States.<sup>3</sup> Computer modelling suggests that screening in this country would be cost effective.<sup>4</sup>

After screening for chlamydia, a means of contacting clients to give results was arranged—for example, letter or phone call. On the Wirral, 2651 patients were screened in the first 4 months—2332 women and 285 men (34, sex not recorded). Sixty eight (2.6%) gave a mobile phone number, half (35) using this as their *only* means of contact. Sixty five were female and two male (one patient not recorded). Thus, women (2.8%) were more likely to use mobile phones than men (0.7%) ( $p = 0.03$ ). The genitourinary medicine (GUM) clinic screened 358 patients. Only 68 (19%) gave an address. The results of a further 469 (17.7%) of the screened population went back to the screening site. These clients could be interested in contact via mobile phone if it was openly offered (data collected from the Public Health Laboratory Service (PHLS) database and analysed on EPI-INFO 6).

According to a survey by NOP Social and Political, confidentiality is important to people in the target age group (unpublished data). Patients consider their mobile phones to be a secure method of communication between themselves and us. The advent of DNA amplification in the detection of STIs has opened up new possibilities.<sup>5,6</sup> There are 30 000 websites pertaining to chlamydia. An internet clinic would be aimed at mildly symptomatic or asymptomatic patients. The client would access the website and request swabs or urine pots through the post then return them the same way.

If the patients were positive, they would need to attend a GUM clinic or equivalent.

Other infections should not be overlooked. Partner notification is necessary. Contact slips could be supplied but the health adviser's role should not be underestimated.

Security on the internet would have to be addressed. However, the anonymity and convenience of participating from home may increase testing for STIs. This may appeal to younger patients particularly, in view of their experience with IT.

In summary, STI is rising in the younger population. Their utilisation of technology is demonstrated by mobile phone use in the chlamydia pilot study. Health providers should respond using media with which the target population is comfortable. We might just access a whole generation. The future's bright . . .

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### Gonorrhoea: an incidence graph of Mersey region data for the 1990s and discussion on the factors behind the changing pattern of incidence

EDITOR.—Gonorrhoea is one of the oldest and a highly infectious sexually transmitted infection. Its prevalence is dynamic and fluctuates over time and is influenced by a number of factors. The incidence of this infection has

changed from a trend of steady decline to a recent increase in many parts of the world.<sup>1,2</sup> The pattern of incidence is closely related to socioeconomic conditions.<sup>3,4</sup>

An incidence graph of Mersey Region figures (fig 1) for the 1990s and a discussion on the possible factors associated with the changing pattern is presented here. The incidence from the Mersey Region shows a steady decline until the mid 1990s followed by a recent increase and represents the trend in most areas. In spite of the advances in the diagnostic and therapeutic field, organised health advisory system, easy access walk-in clinics, complete confidentiality, and free treatments; the incidence of gonorrhoea is rising. From the broader analysis of the situation, it is possible to say that most of the factors behind this changing pattern are socio-economic. The factors may include advances in contraceptives, sexual liberalisation, increase in the mobility of population, and the changing economic environment. The cumulative result of all these factors is an increase in casual relationships. Casual sex is made riskier when it is performed unprotected and without much knowledge about the partner and is possibly the main reason behind the poor contact tracing of only 0.5 out of an average of 1.5 per patient.<sup>5</sup>

Some of these factors are part of the wider evolutionary process and are difficult issues to deal with, but preventive measures may be taken against the others. In spite of the recent advances and better understanding of the disease in the recent years, there is still a lack of awareness, in the general population, of the possible mental and physical effects of such infection. The significant fall in the incidence of gonorrhoea seen in the late 1980s, secondary to extensive media coverage of HIV infection, shows how effective such campaigns can be. The present rise in the incidence of gonorrhoea in the past few years shows clearly that our prevention campaigns are not effective.

The young teenagers who make up the pool of supply and the young females who make up the pool of asymptomatic reservoirs of the infection, are the two core groups our campaigns should be targeting.

At present there is no programme in the school curriculum about sexual health and no regular screening programme for sexually active young females.

A programme of long term measures, such as education on sexual health and sexually transmitted infections in schools, and a programme of regular screening for gonorrhoea (and chlamydia) for all sexually active

young females, may be useful and this can be, to start with, combined with the cervical smear screening programme at very little additional cost. Short term programmes, like vigorous media campaigns nationally and poster and leaflet campaigns locally in high risk recreational areas like pubs and clubs, may have an educational value and help reduce the incidence.

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### Russian STI

EDITOR.—We would like to inform you that we translated into Russian and published in 1999 in the Russian journal of STI the following reviews from *Sexually Transmitted Infections*: Cohen CR, Brunham RC, Pathogenesis of chlamydia induced pelvic inflammatory disease, *Sex Transm Inf* 1999;75:21-24; Fleming DT, Wasserheit DN, From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection, *Sex Transm Inf* 1999;75:3-17; Hammerschlag MR, Sexually transmitted diseases in sexually abused children: medical and legal implications, *Sex Transm Inf* 1998;74:167-174; Dallabetta GA, Gerbase AC, Holmes KK, Problems, solutions and challenges in syndromic management of sexually transmitted diseases, *Sex Transm Inf* 1998;74 (Suppl 1):S1-11.

We hope for further collaboration. We shall inform you about our future plans.

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### Cheilitis in association with indinavir

EDITOR.—There is increasing speculation that indinavir may cause side effects which have been previously associated with high concentrations of retinoids. In the presence of all-trans-retinoic acid (ATRA), indinavir, but not other protease inhibitors (PIs), alters stem cell differentiation in vitro, not seen in the presence of ATRA alone.<sup>1</sup> Alopecia and cheilitis are two side effects associated with both retinoids and the protease inhibitor indinavir (but not with any of the other protease inhibitors). These side effects can be

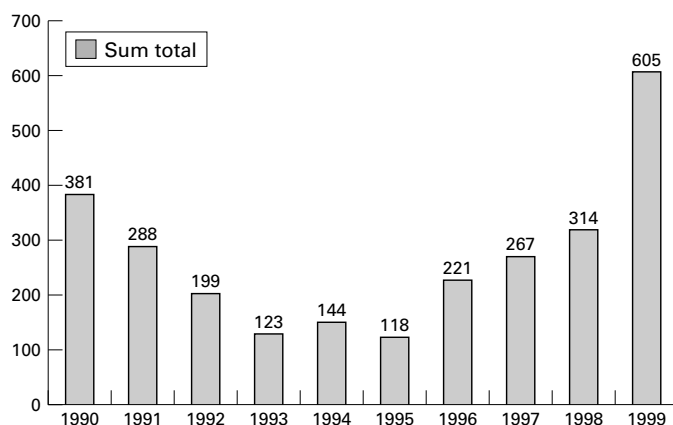


Figure 1 Total incidence of gonorrhoea in the Mersey Region in 1990-9 (in absolute numbers).